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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/857,419	01/18/2002	Kristen J. Hughes	55859-020	3129

22429 7590 12/11/2003

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EXAMINER

BARRY, CHESTER T

ART UNIT PAPER NUMBER

1724

DATE MAILED: 12/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/857,419

Applicant(s)

HUGHES, KRISTEN J.

Examiner

Chester T. Barry

Art Unit

1724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 13 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 50-85 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 50-59 and 72-85 is/are allowed.
- 6) ☒ Claim(s) 60 is/are rejected.
- 7) ☒ Claim(s) 61-71 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5/30/02 6) ☐ Other: \_\_\_\_\_

Claim 60 is rejected under 35 USC Sec. 102(a) as unpatentable over WO99/04878<sup>1</sup> to Nedez. Nedez describes reduces the amount of organophosphorus compounds (please see col 5 line 50 through col 6 line 7) in an organic liquid process waste stream by adding a composition or mixture comprising titanium dioxide (col 5 line 2 and throughout), an alkaline earth metal (col 5 line 32), and<sup>2</sup> iron (col 5 line 34) thereto. Upon disclosure of "alkaline earth metal," the skilled artisan would have "at once envisaged" disclosure of calcium as well as Sr, Ba, and Ra.

Claims 50 – 59, 72-85 are allowed.

Claims 61 – 71 are objected to, but would be allowed if re-written in independent form.

USP 4267058 to Kyri describes « iron (II) sulphate heptahydrate » as a byproduct of titanium dioxide manufacture, but does not describe use of titanium dioxide itself to dephosphatize a liquid waste effluent stream.

USP 5961968 to Moore is exemplary of the cited Moore patents describing use of ferric sulphate heptahydrate in combination with a calcium compound (see for example Table

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<sup>1</sup> This reference – an equivalent of USP 6656363 – intervenes the filing of the provisional application and the pending national stage of the international application.

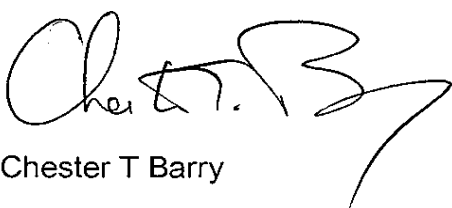
<sup>2</sup> See disclosure of "at least one of the elements selected from [various elements]" (col 5 line 30). The skilled artisan would have understood this to mean "the elements selected from [various elements], *and mixtures thereof*." See also description of the presence of "compounds of these elements" (emphasis added) at col 5 line 36.

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2 item 18) to reduce bioavailable phosphorus levels, but does not describe use of titanium dioxide.

A handwritten signature in black ink, appearing to read "Chester T. Barry". The signature is stylized with a large "C" and a long, sweeping underline.

Chester T Barry

Examiner

703-306-5921